Research Day

North Florida/South Georgia Veterans Health System

Research Collaboration for the Exceptional Care of Our Veterans

****Monday, May 16, 2011****

Malcom Randall VA Medical Center - Auditorium

8:30 a.m. – 9:00 a.m.	*Meet and Greet*
9:00 a.m. – 12:00 noon	*Speakers and Presentations*
1:00 p.m. – 3:00 p.m.	*Research Day Open House*

Presentation Speakers

Jawaharlal M. Patel, Ph.D.

- Acting Associate Chief of Staff for Research Service, NF/SGVHS
- Research Career Scientist, NF/SGVHS
- Professor of Medicine and Pharmacology, UF College of Medicine

Interests: Pulmonary hypertension, lung transplantation
E-mail: jawaharlal.patel@va.gov or pateljm@medicine.ufl.edu

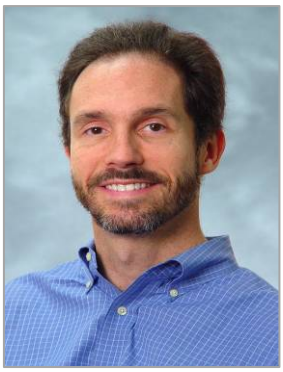
Topic: *Research Overview and Accomplishments*

Topic Summary

Dr. Patel's presentation reviews the changes in the Research Service administration process since the Research Service was redesigned approximately three years ago. He will review the current status of research funding and future plans to enhance the research and health care mission of the VA.

Speaker Profile

Dr. Patel is a Research Career Scientist and the Acting Associate Chief of Staff for Research at North Florida/South Georgia Veterans Health System, Gainesville, FL. He is also a Professor of Medicine and Pharmacology in the College of Medicine at the University of Florida. Dr Patel's research activities have been supported since 1983 by the National Institutes of Health and since 1990 by the Medical Research Service of the Department of Veterans Affairs. His research efforts are focused on identifying molecular mechanisms of the regulation lung vascular endothelium-derived nitric oxide (NO) production and its role in the development of pulmonary hypertension (PH). This project using animal model of hypoxia-induced PH is developing novel peptide-based therapeutic approaches for the treatment of PH. He has also developed and characterized a rat model of lung transplantation to identify molecular mechanisms associated with allograft rejection. These studies are focused on examining the potential role of priming of donor lungs with thioredoxin, a redox regulatory protein, and prior to transplantation. This novel noninvasive approach has shown promising results that limits early ischemia-reperfusion-induced injury and extends graft survival in animal models. Dr. Patel serves on multiple NIH and VA review panels. He has published more than 120 articles in national and international biomedical journals. Dr. Patel has been a mentor for pre-med students, post-doctoral and pulmonary fellows for 28 years.



Roger B. Fillingim, Ph.D.

- Research Health Scientist, NF/SGVHS
- Professor at the University of Florida College of Dentistry

Interests: Pain perception, chronic pain, low back pain
E-mail: roger.fillingim@va.gov or RFillingim@dental.ufl.edu

Topic: *Individual Differences in Pain: Relevance to Veterans*

Topic Summary

Pain is arguably the most prevalent and most expensive health condition in the U.S., and chronic pain affects Veterans disproportionately. Pain is significantly influenced by multiple biopsychosocial factors, including genetic factors, age, gender, and ethnicity. Dr. Fillingim's presentation will review the contributions of these factors to pain responses and will discuss their relevance for Veterans.

Speaker Profile

Dr. Fillingim is a Professor at the University of Florida College of Dentistry and a Research Health Scientist at North Florida/South Georgia Veterans Health System, Gainesville, FL. Dr. Fillingim received his Ph.D. in Clinical Psychology from the University of Alabama at Birmingham in 1990, and he completed a postdoctoral fellowship in pain research at the University of North Carolina in 1994. Dr. Fillingim maintains an active research program investigating individual differences in pain and analgesia. His current projects include investigations of ethnic and gender differences in pain and response to opioid analgesics, examining predictors of risk for development of chronic orofacial pain, and exploring genetic contributions to pain sensitivity, analgesic responses, and chronic pain risk. He has received numerous grants from the National Institute of Health, has published more than 150 scientific articles and book chapters, and has edited two books on pain and authored another. Dr. Fillingim has a long history of mentoring graduate students, post-doctoral fellows, and junior faculty members. Dr. Fillingim has served on multiple NIH review panels and serves on the editorial boards of four different journals. Dr. Fillingim has received several awards, including a University of Florida Research Foundation Professorship, and the 2009 Wilbert E. Fordyce Clinical Investigator Award from the American Pain Society. He is a frequent speaker at national and international meetings on the topic of individual differences in pain perception, including gender differences, ethnic differences and genetic influences on pain.

Bruce Crosson, Ph.D., ABPP-CN

- Neuroimaging Methodology Core Coordinator, Brain Rehabilitation Resource Center, NF/SGVHS
- Senior Research Career Scientist, NF/SGVHS
- Professor of Clinical and Health Psychology, University of Florida

Interests: Language function, semantic memory, cognitive aging
E-mail: bruce.crosson@va.gov or nossorc1@phhp.ufl.edu

Topic: *How Changes in the Aging Brain Affect Cognition*

Topic Summary

Since well before Ponce de Leon searched for the fountain of youth in Florida, people have sought to stem the effects of aging. The decline in cognitive (thinking) and motor functions with aging has been well documented. Investigators affiliated with Dr. Crosson's laboratory at the VA Rehabilitation Research & Development Brain Rehabilitation Research Center of excellence have studied the brain mechanisms underlying cognitive and motor changes in aging. Their findings indicate that there is a loss of the ability of one brain area to suppress others in the motor system during aging. Such changes may also occur in language systems and are associated with a loss of efficiency in language functions. These changes in brain systems appear to be progressive from early to late old age. However, our research also indicates that they may be lessened in persons that engage in aerobic exercise. Implications for aging and future research will be discussed.

Speaker Profile

Dr. Crosson has served as the Brain Rehabilitation Resource Center Neuroimaging Methodology Core Coordinator at North Florida/South Georgia Veterans Health System, Gainesville, FL since 1999 and is also a University of Florida Professor of Clinical and Health Psychology. A VA Research and Development Research Career Scientist since 2004 (Senior as of 2009), University of Florida Research Foundation Professor (2000-2003), Fellow of the American Psychological Association (Division of Clinical Neuropsychology), and Honorary Professor at the University of Queensland in Australia, Dr. Crosson has studied language and aphasia for over 20 years, and his work in subcortical structures in language is internationally recognized. His laboratory research investigates neural substrates of semantic memory, neural structures involved in verbal working memory, and variability in the functional neuroanatomy of language.

William C. Mann, OTR, Ph.D.

- Director, Rehabilitation Outcomes Research Center
- (RORC REAP), NF/SGVHS
- Chairman, Department of Occupational Therapy, College of Public Health and Health Professions, University of Florida
- Director, Center for Telehealth & Healthcare Communications, UF
- Distinguished Professor, PhD Program in Rehabilitation Science, College of Public Health and Health Professions, University of Florida

Interests: Aging, frail elderly, assistive technology
E-mail: wmann@phhp.ufl.edu or William.mann@va.gov

Topic: *UF/VA Trauma Rehabilitation Research*

Topic Summary

Dr. Mann's presentation reviews the establishment of the UF/VA led Florida Institute on Disability and Rehabilitation, focusing on a sub-unit, the Florida Trauma Rehabilitation Center for Returning Military Personnel. Nine projects are planned with funds from a $2.4 million congressional award. Each of these projects will be briefly described.

Speaker Profile

Dr. Mann is Director of the Rehabilitation Outcomes Research Center Research Enhancement Award Program (RORC-REAP) at North Florida/South Georgia Veterans Health System, Gainesville, FL. He also is Distinguished Professor and Chair of Occupational Therapy, Director of the Ph.D. Program in Rehabilitation Science at the University of Florida (UF), and Director of the UF Center for Telehealth and Healthcare Communications. Dr. Mann served as the Principal Investigator for the National Institute on Disability and Rehabilitation Research-funded Rehabilitation Engineering Research Center (RERC) on Aging from 1991 to 2007. The work of this RERC included a focus on telehealth and home monitoring. Before his appointment at UF, he was a professor at the University at Buffalo for 25 years. In 2009, he was recruited as Director of the RORC-REAP, following 7 years of collaboration with VA and RORC investigators and 2 years as a VA Health Research Scientist. Dr. Mann has authored more than 145 articles and book chapters on aging and independence, authored/edited five books, and founded and served as co-editor of the journal Technology and Disability from 1990 to 2000. He has served as the Conference Chair for the 1999, 2003, 2006, and 2008 International Conference on Aging, Disability and Independence, and has served on the boards of both the American Society on Aging and the Florida Council on Aging. His research and rehabilitation experience extends internationally to collaborations in Canada, Europe, and Brazil, and he is an honorary professor at the University of Sydney in Australia. Dr. Mann has over 35 years of experience in rehabilitation and community-based programs spanning research, service, and education with a focus on applying technology to promote independence. Dr. Mann's current work addresses the needs of Veterans with disabilities, the application of home monitoring and communications technologies (telehealth, telerehabilitation), and tools for driver assessment and rehabilitation.

Gregory Schultz, Ph.D.

- Professor of Obstetrics and Gynecology, University of Florida
- Director of the Institute for Wound Research, University of Florida

Interests: Chronic wound care, rapid point-of-care diagnostic
E-mail: schultzg@ufl.edu

Topic: *Advancing Chronic Wound Care: Collaboration between UF and Malcom Randall VA*

Topic Summary

Dr. Schultz's presentation reviews the molecular and bacterial imbalances in chronic wounds that prevent healing and the development of new point-of-care diagnostics and therapies tested in randomized control trials conducted at the Malcom Randall VA Medical Center that enable personalized therapies to be designed that enhance healing for each patient's chronic wound.

Speaker Profile

Dr. Schultz is a Professor of Obstetrics and Gynecology and Director of the Institute for Wound Research at the University of Florida. Dr. Schultz's research focuses on molecular regulation of normal wound healing in skin and eye and the molecular imbalances that lead to excessive scar formation (fibrosis) or failure of wounds to heal (chronic wounds). Dr. Schultz has published more than 270 research papers, chapters and review articles, which have been cited more than 6,600 times and he has more than fifteen patents in the area of wound healing. He is a Principle Investigator or Co-Investigator on research grants totaling over $35 million from the National Institutes of Health and pharmaceutical companies. He has collaborated with several North Florida South Georgia Veterans Health System researchers, including Drs. Linda Cowan, Joyce Stechmiller, and Gloria Chin, in the area of chronic wound care.

Scott Berceli, M.D., Ph.D.

- Chief, Vascular Surgery, NF/SG VHS
- Professor of Surgery, University of Florida
- Medical Director, Shands Non-Invasive Vascular Laboratory

Interests: Vascular surgery, vein bypass grafting, arterial occlusive disease
E-mail: scott.berceli@va.gov or bercesa@surgery.ufl.edu,

Topic: *Understanding Vein Graft Failure: Integrating These Concepts into Improving Patient Outcomes*

Topic Summary

Surgical bypass grafting stands as the most effective treatment option for preventing limb amputation, but durability remains compromised with almost 40% of vein bypass grafts failing within a year. Current engineering and vascular biology approaches are being used to understand the mechanisms for these failures and improve delivery of care to patients requiring these interventions.

Speaker Profile

Dr. Scott Berceli is currently Professor of Surgery at the University of Florida, Chief of Vascular Surgery at the NF/SGVHS, and Medical Director of the Shands Non-Invasive Vascular Laboratory. He received his B.S. in Chemical Engineering from the Massachusetts Institute of Technology, followed by his M.D. and Ph.D., in Chemical Engineering, from the University of Pittsburgh. He completed his residency in General Surgery at the Harvard-Beth Israel Deaconess Medical Center and subspecialty training in Vascular Surgery at the University of Washington. Current basic and translational research activities, funded by the NIH, VA, and Whitaker Foundation, examine the role of physical forces in early vein bypass graft failure. Through the development of a multidisciplinary team involving engineers, vascular biologists, mathematicians and clinicians, he has brought a multi-scale, systems level understanding to the dynamics of vascular remodeling, with an emphasis on understanding these events in human pathology. His active clinical interest focuses on the surgical treatment of peripheral arterial disease.